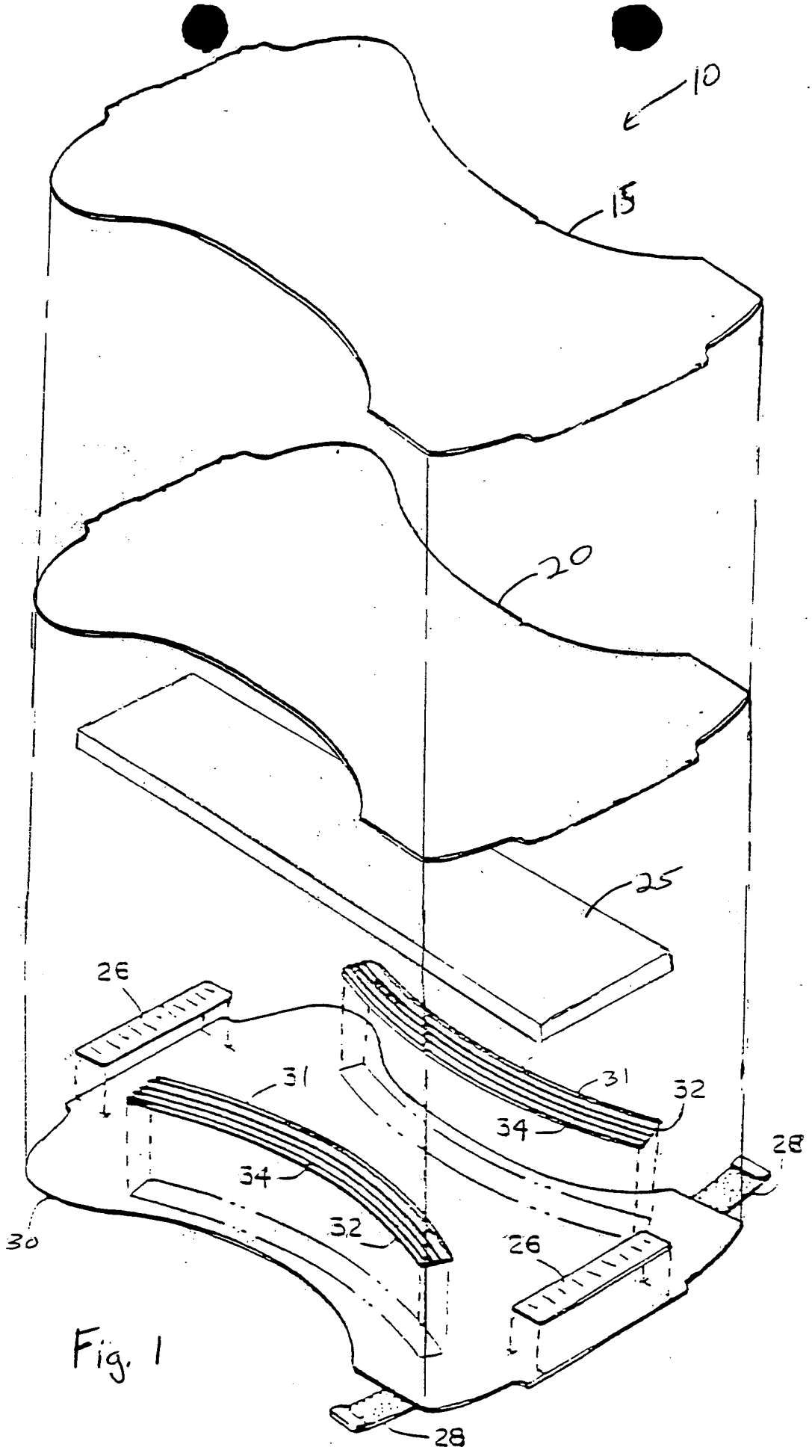


Fig. 1

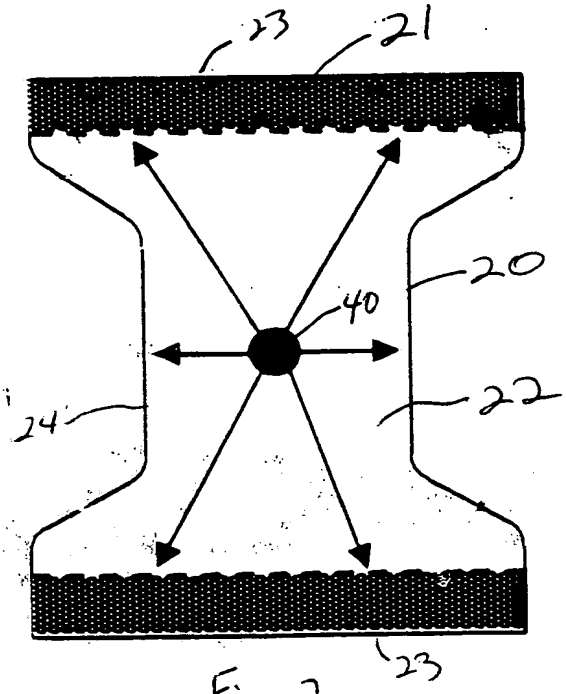


Fig. 2

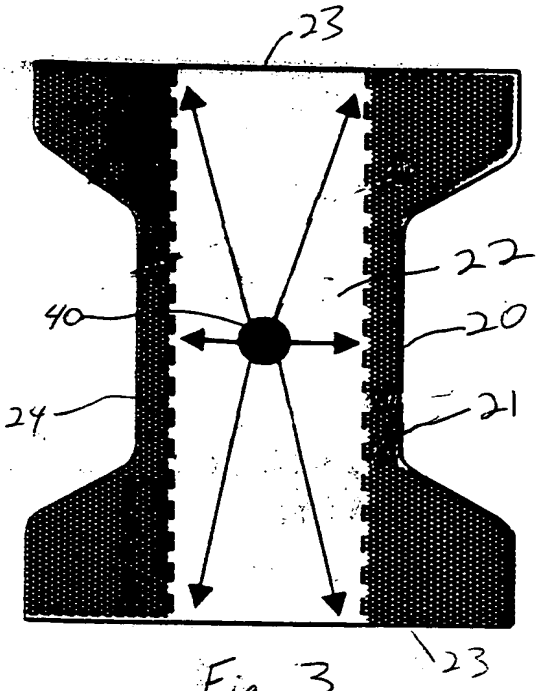


Fig. 3

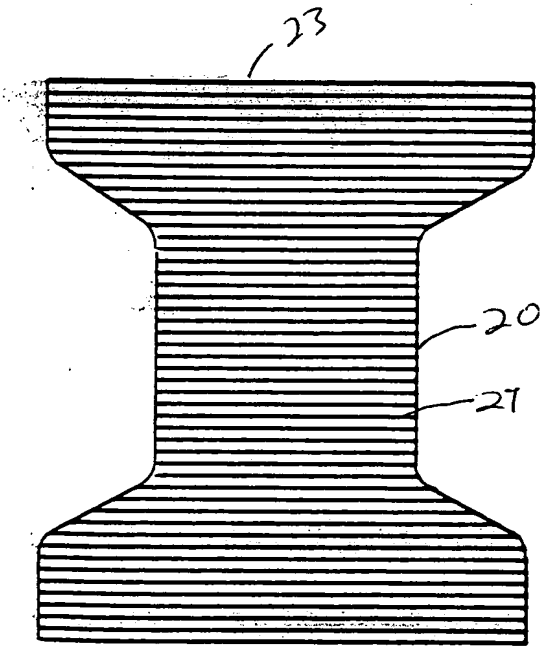


Fig. 4

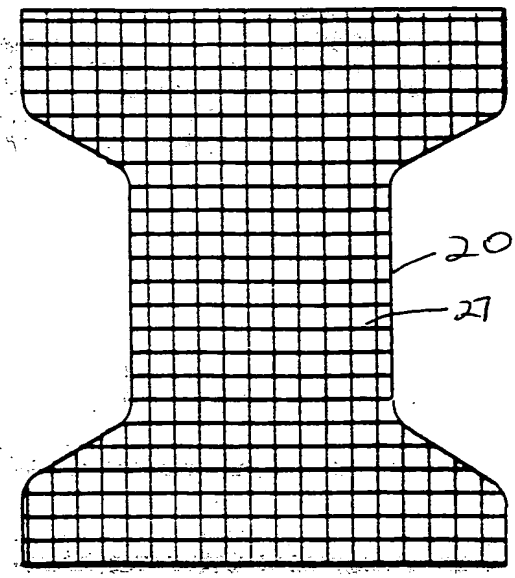


Fig. 5

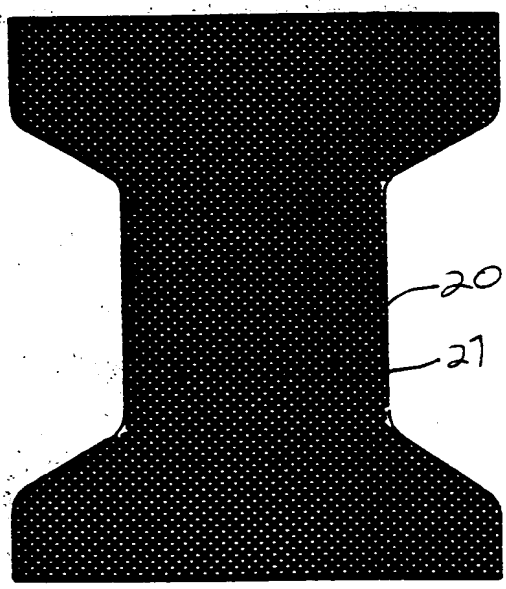


Fig. 6.

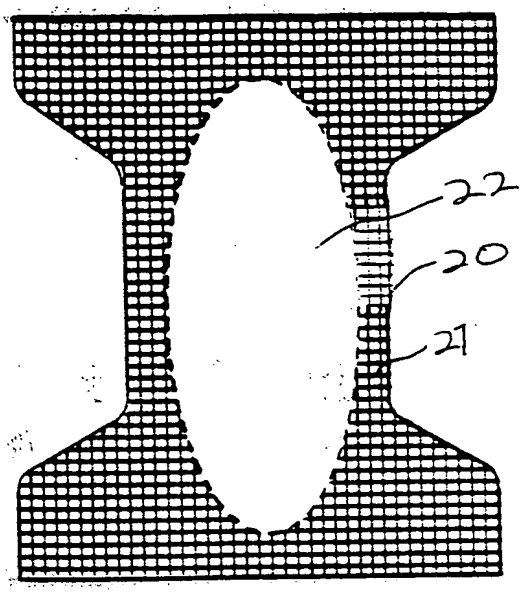


Fig. 7

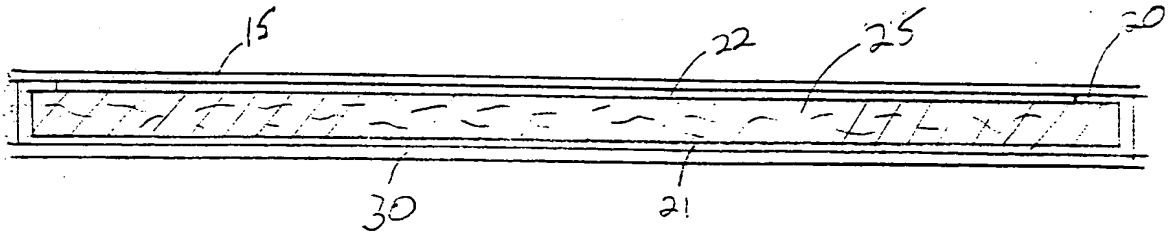


Fig. 8

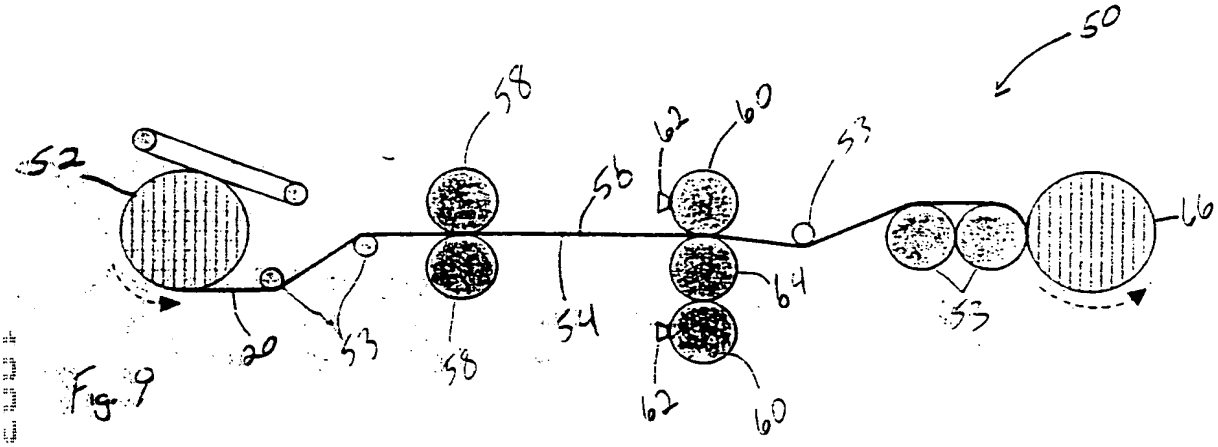

50
52
58
62
60
53
56
66
64
54
20
53
58
62
60

Fig. 9

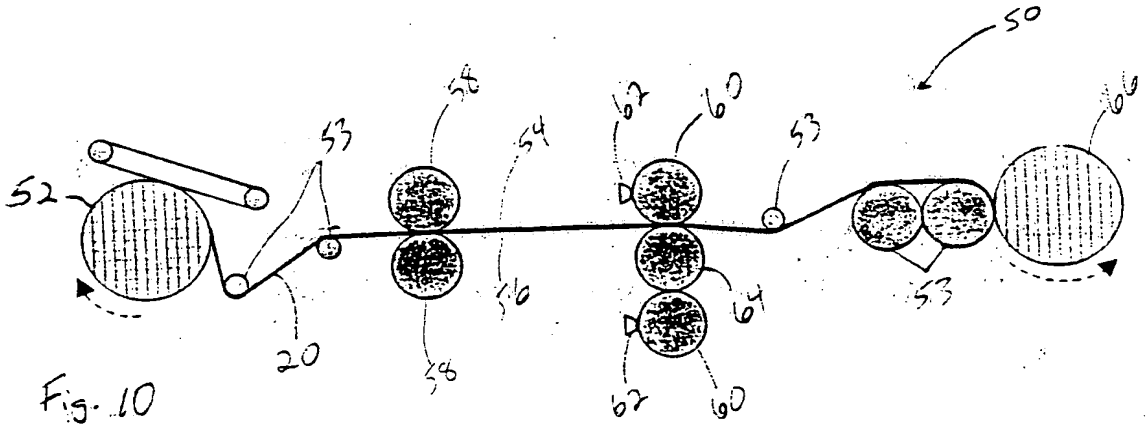

50
52
53
56
54
62
60
53
66
64
20
58
62
60

Fig. 10

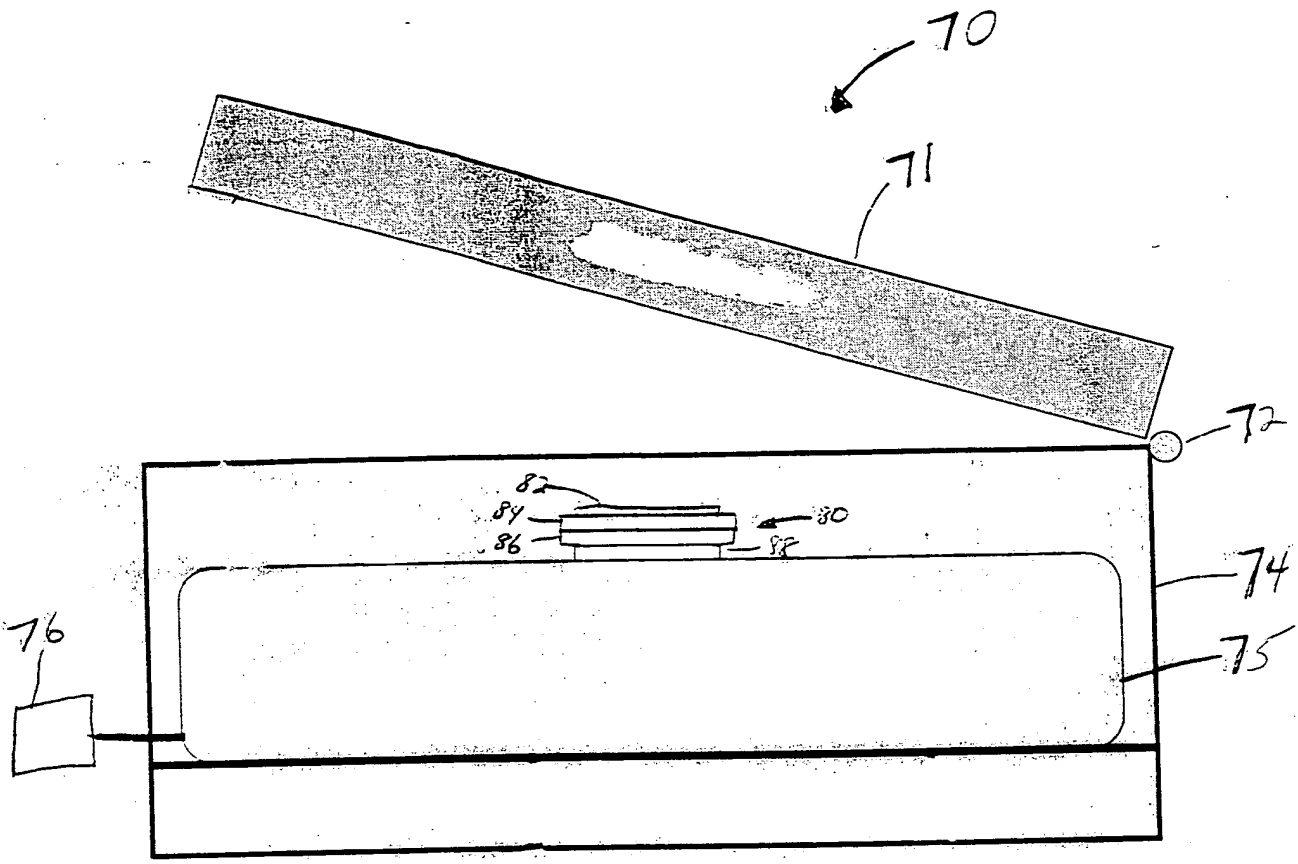


Fig. 11

FIG. 12

REWET UNDER LOAD @ 50% SATURATION RESULTS FOR MULTI-LAYER SYSTEM.

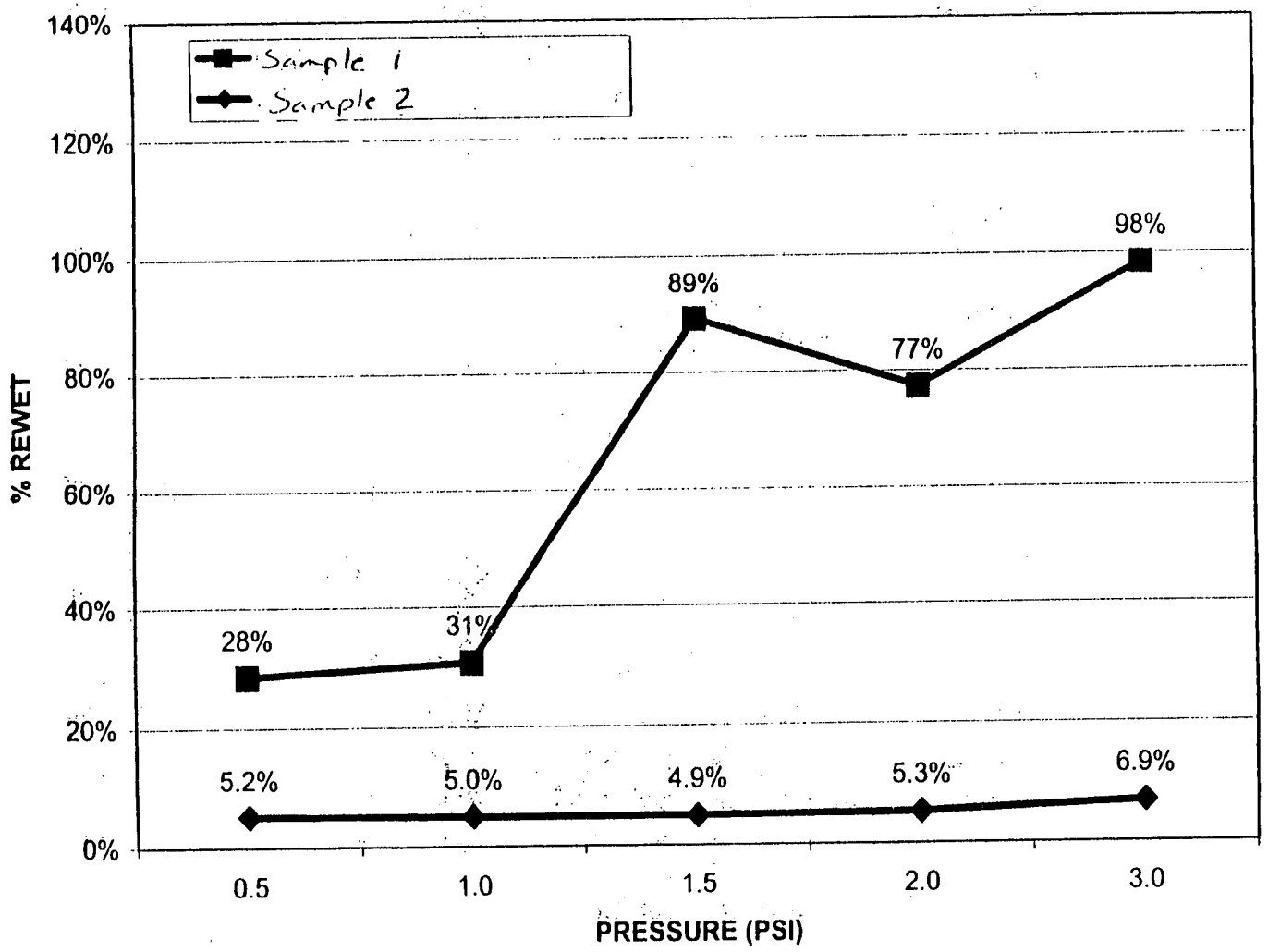


FIG. 13

REWET UNDER LOAD @ 50% SATURATION FOR TISSUE ONLY (NO LINER)

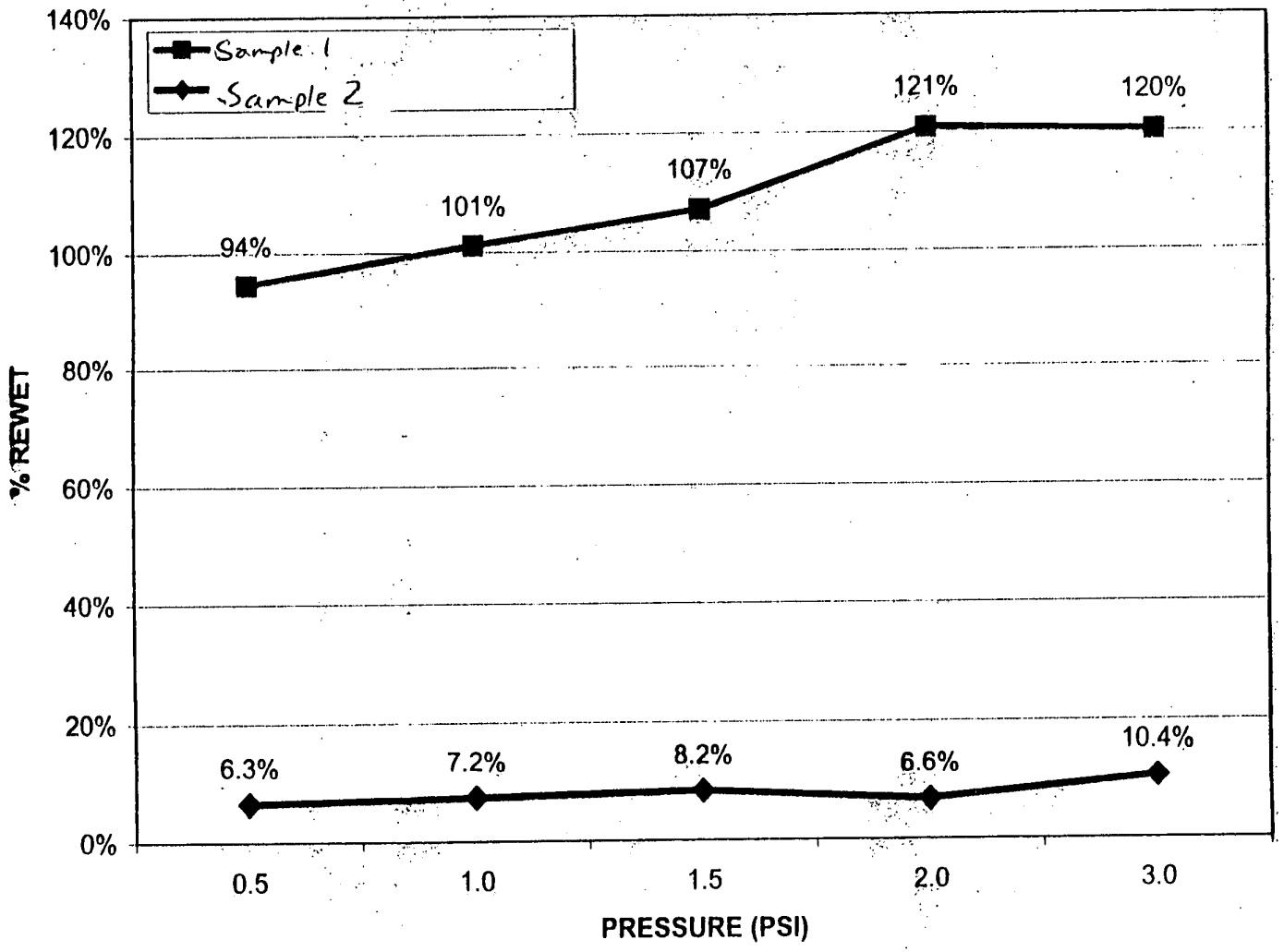


FIG. 14

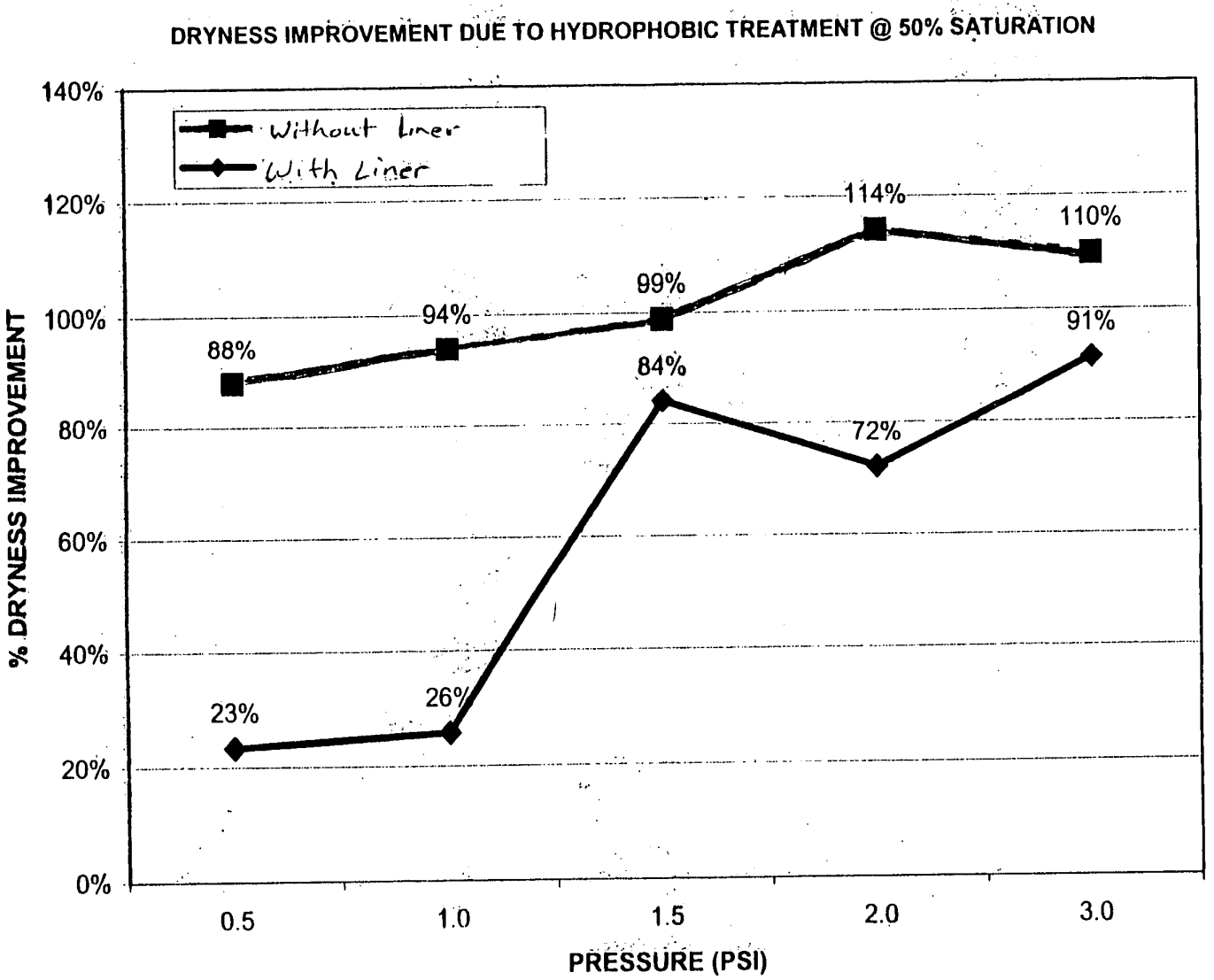

DRYNESS IMPROVEMENT DUE TO HYDROPHOBIC TREATMENT @ 50% SATURATION
Without Liner
With Liner
% DRYNESS IMPROVEMENT
140%
120%
100%
80%
60%
40%
20%
0%
88%
94%
99%
114%
110%
23%
26%
84%
72%
91%
0.5
1.0
1.5
2.0
3.0
PRESSURE (PSI)

FIG. 15

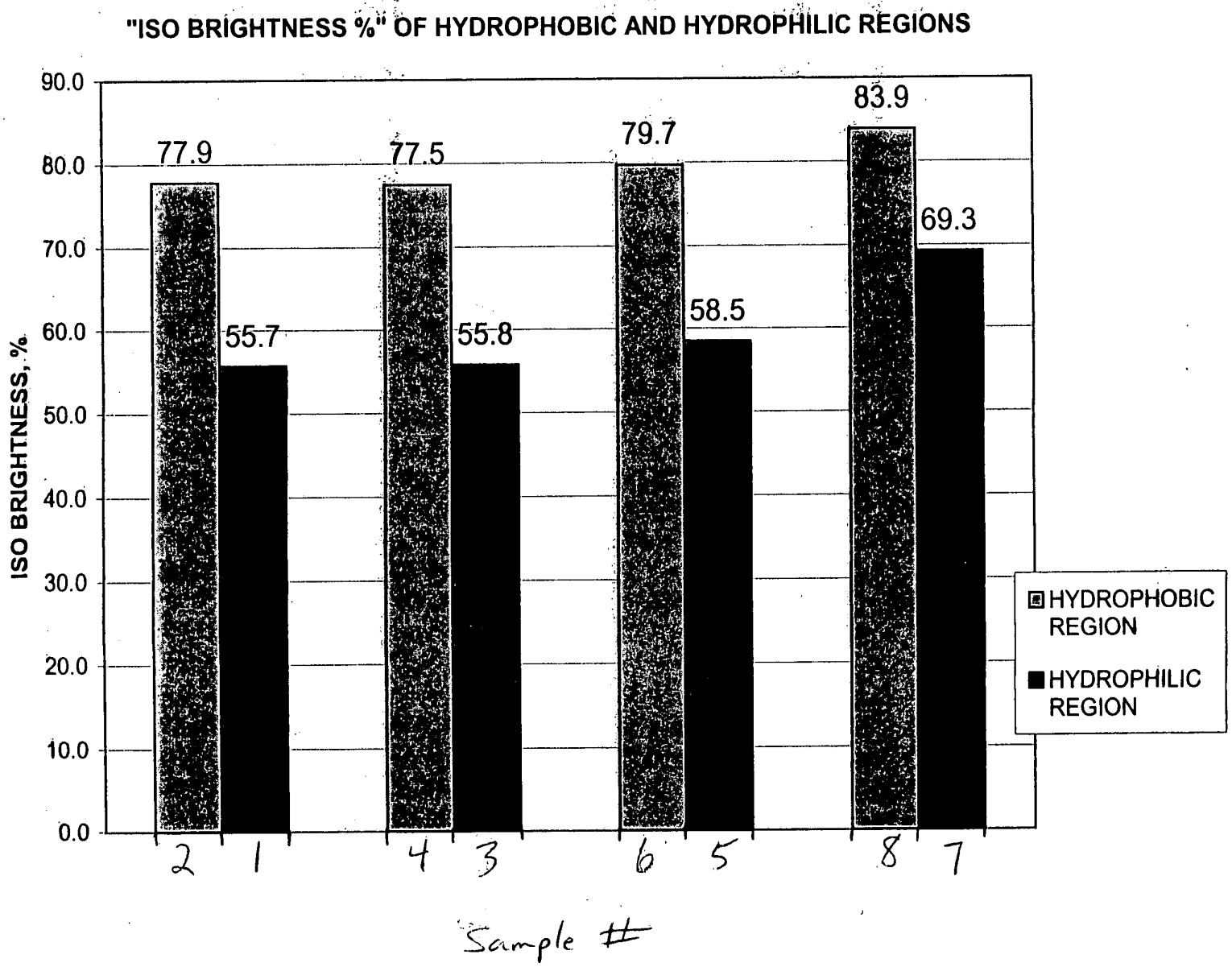

"ISO BRIGHTNESS %" OF HYDROPHOBIC AND HYDROPHILIC REGIONS
ISO BRIGHTNESS, %
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
77.9
55.7
77.5
55.8
79.7
58.5
83.9
69.3
2
1
4
3
6
5
8
7
Sample #
HYDROPHOBIC REGION
HYDROPHILIC REGION

FIG. 16

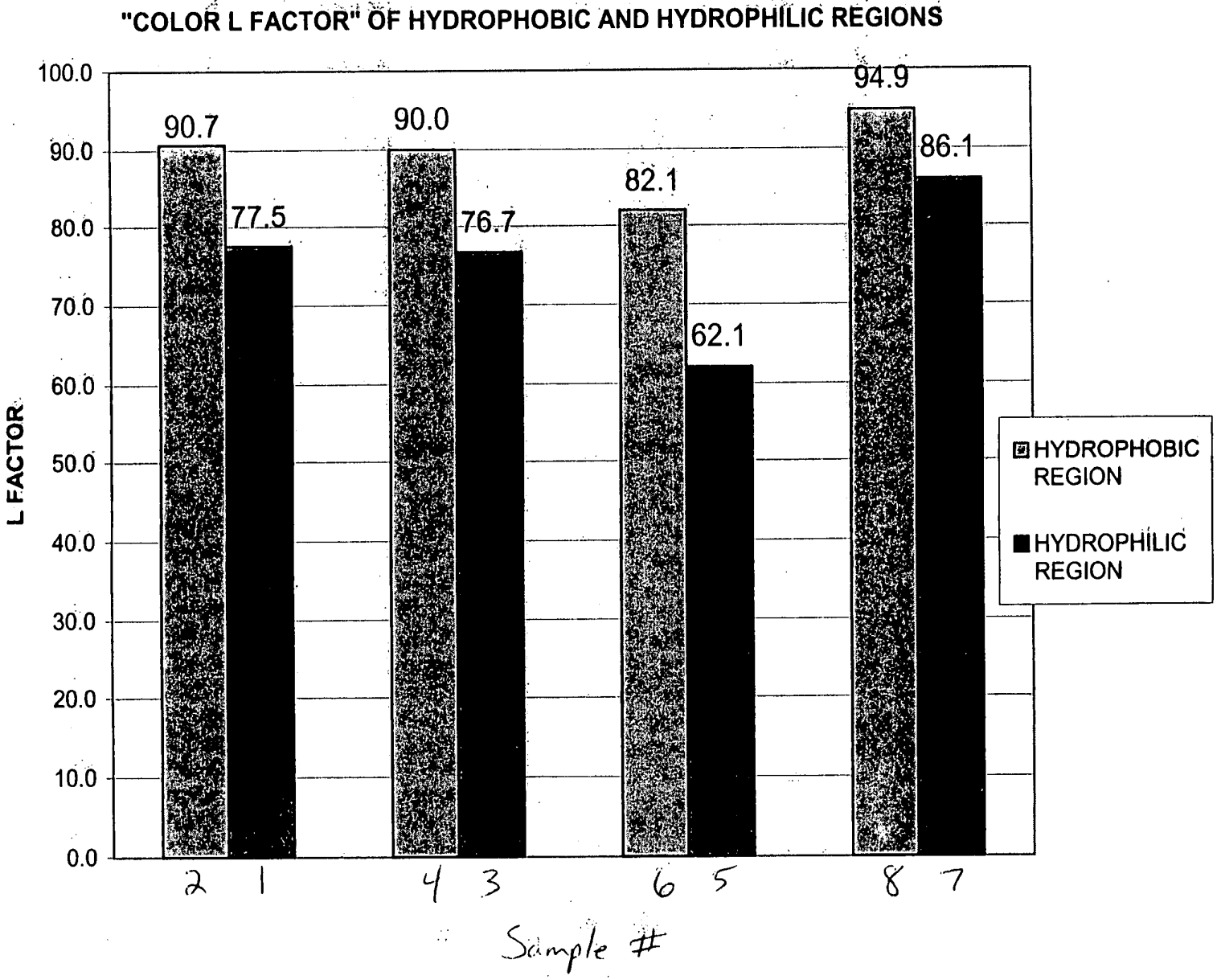

"COLOR L FACTOR" OF HYDROPHOBIC AND HYDROPHILIC REGIONS
L FACTOR
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
90.7
77.5
90.0
76.7
82.1
62.1
94.9
86.1
2 1
4 3
6 5
8 7
Sample #
HYDROPHOBIC REGION
HYDROPHILIC REGION

FIG. 17

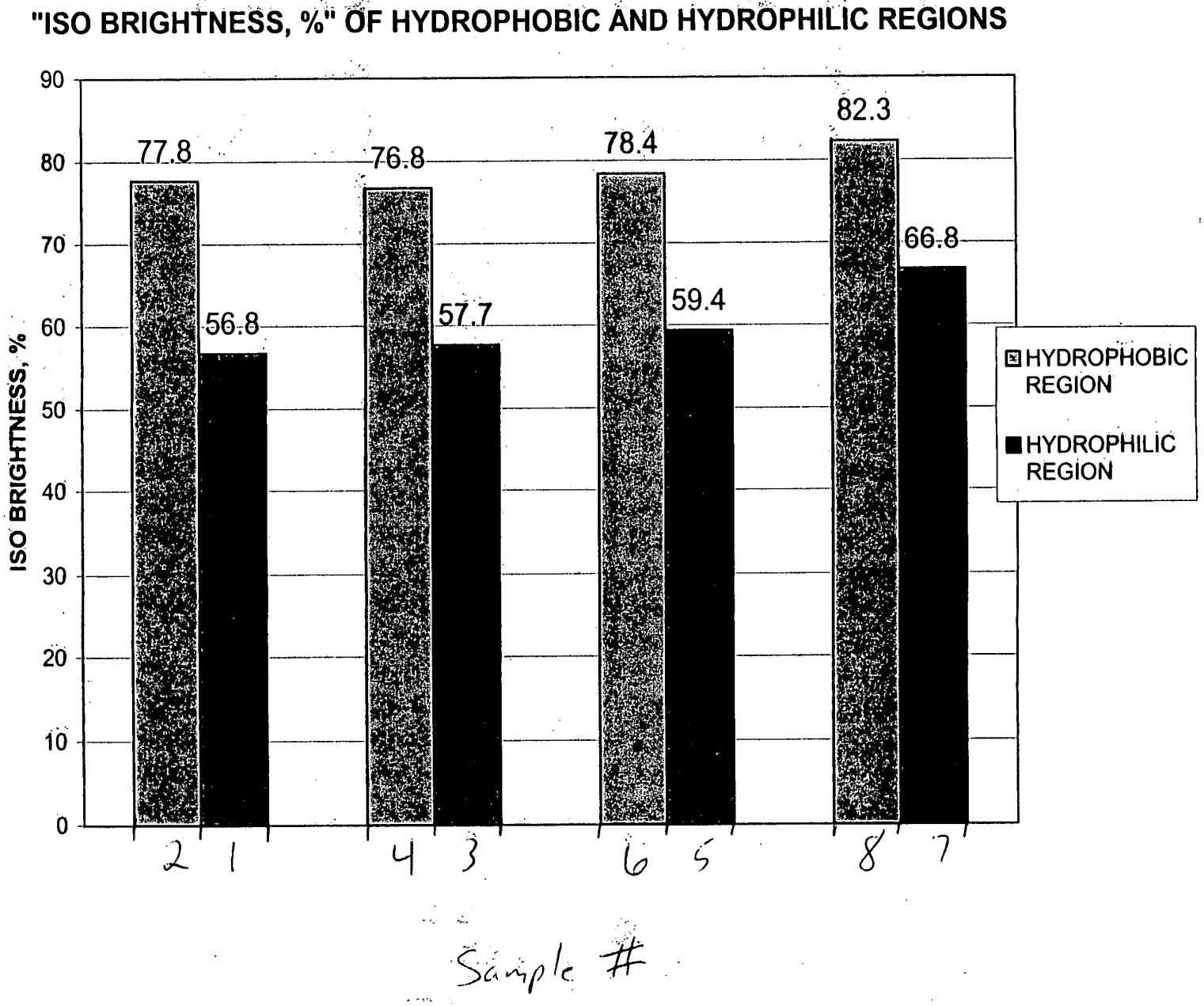

"ISO BRIGHTNESS, %" OF HYDROPHOBIC AND HYDROPHILIC REGIONS
ISO BRIGHTNESS, %
90
80
70
60
50
40
30
20
10
0
77.8
56.8
76.8
57.7
78.4
59.4
82.3
66.8
HYDROPHOBIC REGION
HYDROPHILIC REGION
2 1
4 3
6 5
8 7
Sample #

FIG. 18

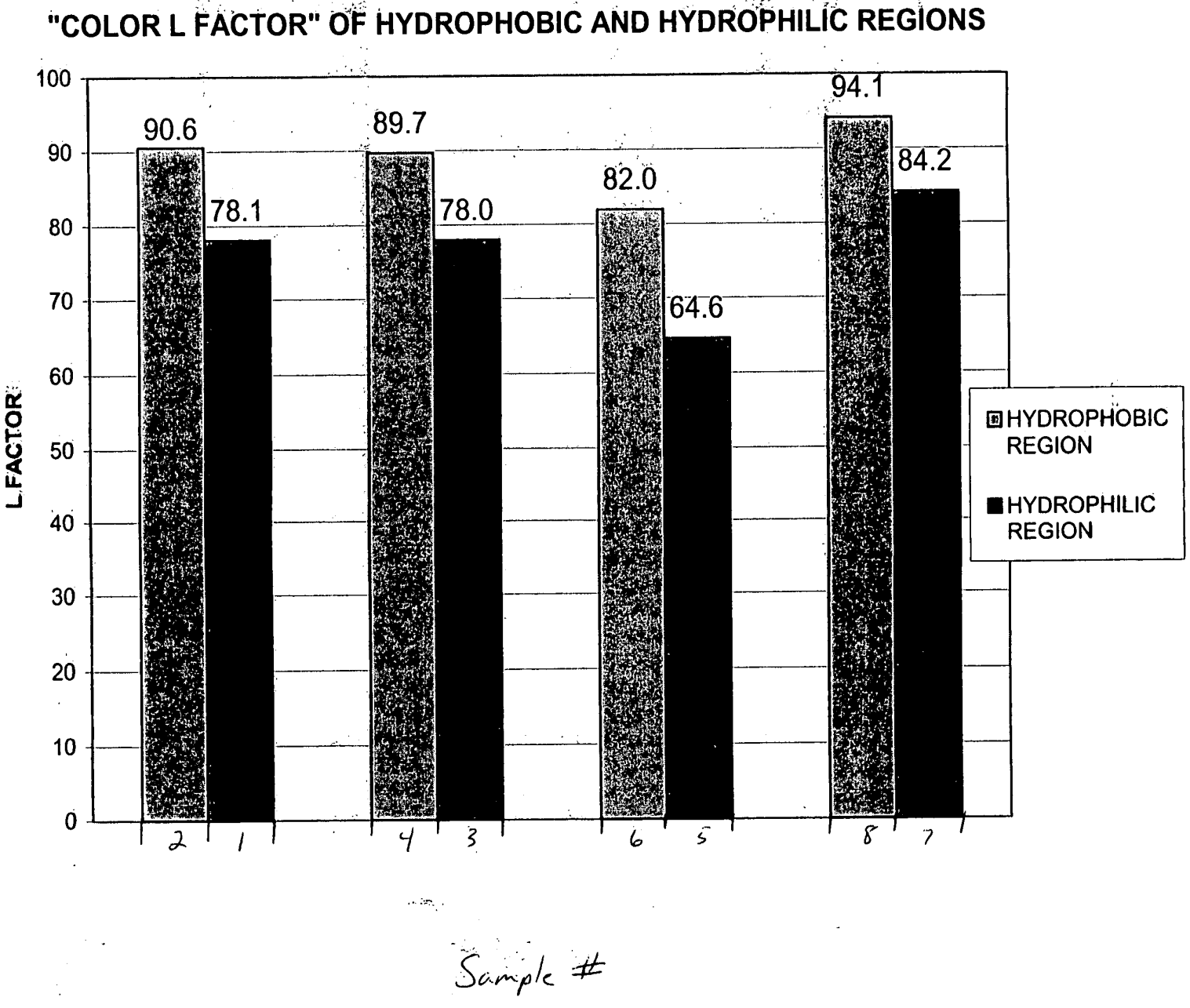
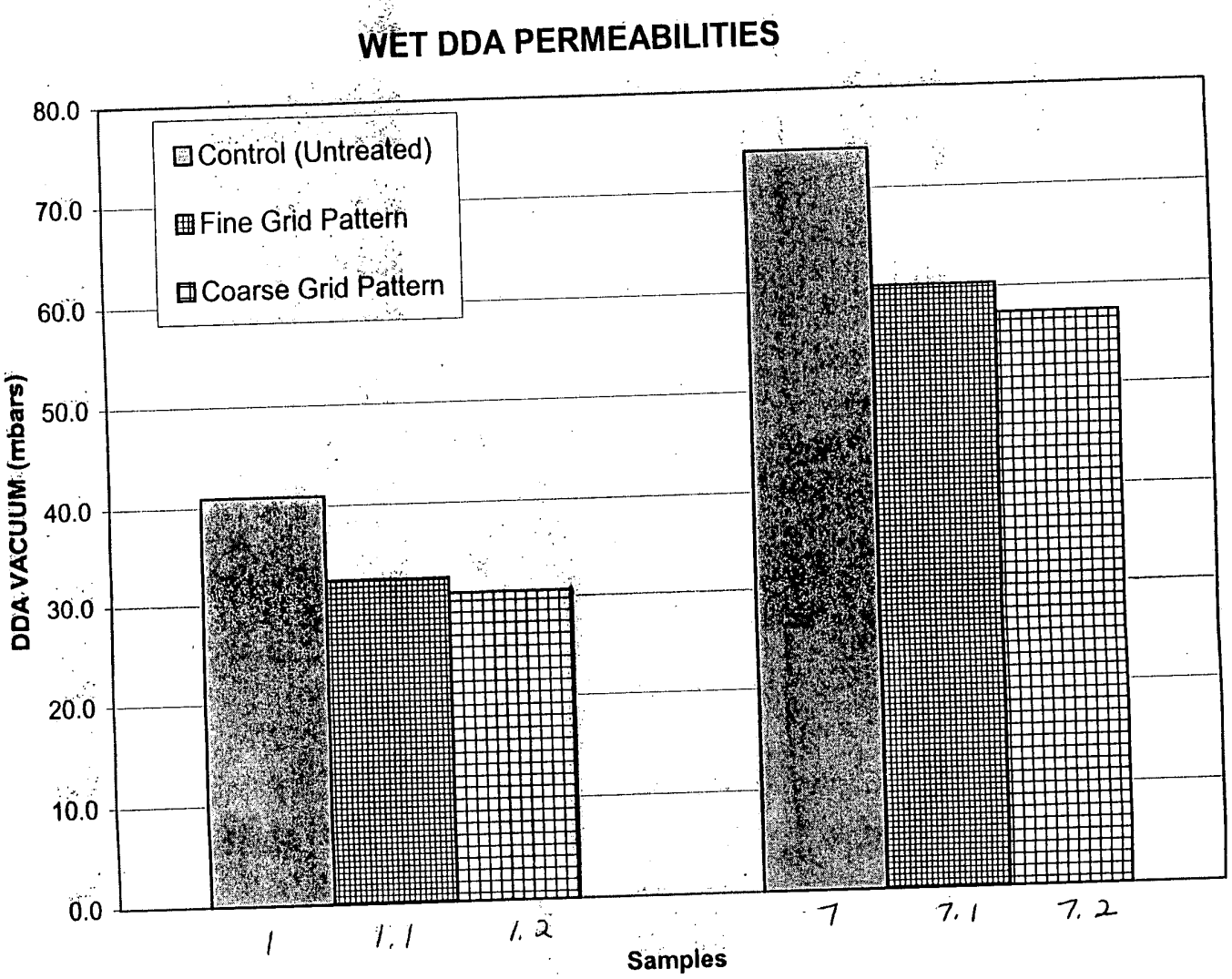

"COLOR L FACTOR" OF HYDROPHOBIC AND HYDROPHILIC REGIONS
L FACTOR
100
90
80
70
60
50
40
30
20
10
0
90.6
78.1
89.7
78.0
82.0
64.6
94.1
84.2
2
1
4
3
6
5
8
7
HYDROPHOBIC REGION
HYDROPHILIC REGION
Sample #

FIG. 19


WET DDA PERMEABILITIES
Control (Untreated)
Fine Grid Pattern
Coarse Grid Pattern
DDA VACUUM (mbars)
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
1
1.1
1.2
7
7.1
7.2
Samples

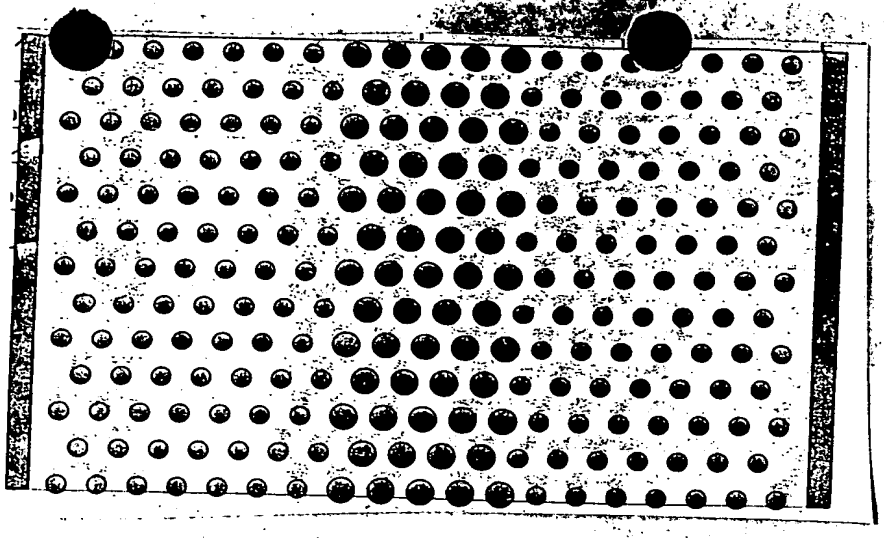


Fig. 20

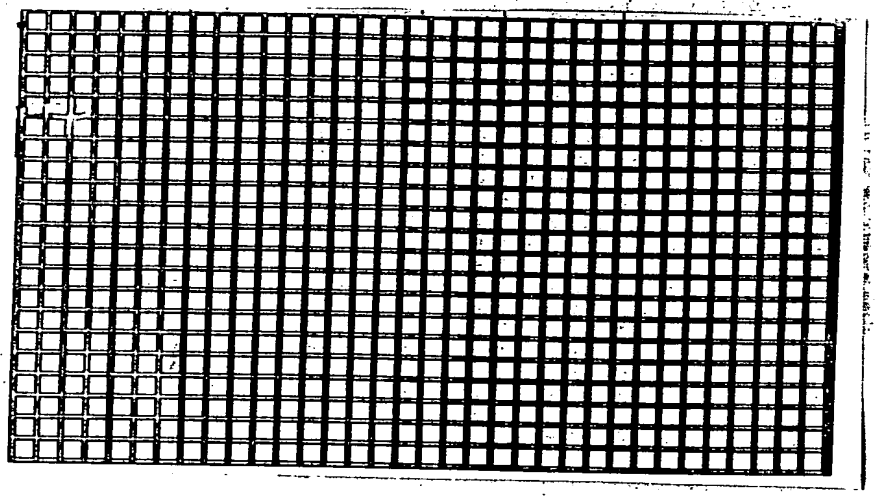


Fig. 21

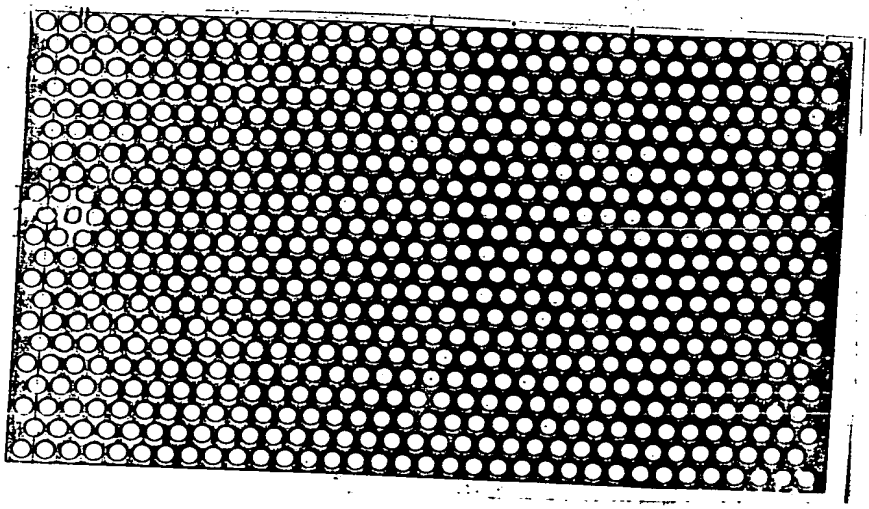


Fig. 22